



Original Research Article

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**AN EXPLORATORY STUDY TO ASSESS THE EFFECTIVENESS OF SELF
STRUCTURED MODULE ON RENAL CARE AMONG STAFF NURSES TAKING
CARE OF PATIENTS UNDERGOING DIALYSIS IN MEDICAL WARDS OF
TERTIARY LEVEL HOSPITAL IN INDORE**

Pinky Chutel, Peter Jasper Youtham, Sonali Kumawat

Indore Nursing College, Indore

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***Corresponding author:**

Pinky Chutel

Present address

Indore Nursing

College, Indore

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Abstract:

CKD is a progressive disease characterized by an increasing inability of the kidneys to maintain normal low levels of the products of protein metabolism, normal blood pressure, hematocrit, sodium, water, potassium and acid-base balance. A cross section study of 50 patients was conducted to find out CKD aetiology, clinical & biochemistry profile, age & sex preference, involvement of other system and requirement of dialysis. Major (81%) aetiology was diabetes & hypertension. There was no sex difference. Anorexia, nausea, vomiting, oliguria, easy fatigability, breathlessness, pedal edema were Common complaints where as Common complications were anaemia, electrolyte imbalance and pulmonary edema. Early diagnosis and proper treatment of conditions like HT, DM, & Renal Stones may retard the progression of renal disease.

Key words: CKD, GFR, HT, DM

INTRODUCTION

Health is an ongoing course, an approach of life, through which a person develops and encourages every aspect of the body, mind and feelings to interrelate harmoniously as much as possible. Perception about health varies according to an individual's previous experience, age and socio-cultural influences.

End stage renal disease is a chronic illness which inevitably reduces the lifespan of its patients. The continuous ambulatory peritoneal dialysis [CAPD], haemodialysis and Renal Transplantation treatment modalities are available, none of these treatments are curative, instead they offer symptom relief, extend life expectancy and are intended to improve the quality of life. When the kidney is unable to filter blood, an alternate method for filtration is necessary. Lifetime dialysis becomes inevitable unless kidney transplantation is performed and is successful.

The need for good education and preparation of the individual and the family at all stages of chronic renal failure, and potentially heading towards end stage renal failure, cannot be underestimated.

The nursing staff in the dialysis unit should consult the health team members regarding the patient and the care givers to become familiar with the procedure and dialysis unit, as the nurse has to provide information and care during the procedure and the patient and the caregivers will develop better interpersonal relationship with the nurse. Hence the patient and the caregivers should be expected to have more information related to what type of pain will be experienced during the treatment and how long and how often the dialysis will be done, the effects of the treatment, diet during the dialysis and the extent to which the family or the caregiver's involvement during the therapy.

DATA ANALYSIS AND INTERPRETATION

The type of research study and statistical analysis of the data should be decided on the basis of its proposed aims, objectives and the availability of resources, in addition to ethical considerations.

This present chapter is comprises of the statistical analyses and interpretation of the data collect to assessed "The effectiveness of self instructional module regarding knowledge related to care of patient undergoing dialysis among staff nurses working in dialysis unit of the selected hospital of Indore."

Analysis and interpretation of the data were based on data collected through structured knowledge questionnaire and observation checklist for practices questionnaire which involves drawing of valid interferences and the translation of information collected during the course of the research study into interpretable, convenient and descriptive terms. The main motive of statistical analysis is to reduce data to an intelligible and interpretable form so that the relations of research problems can be studied and verified. For testing of hypothesis analyses of data were done by using both descriptive and inferential statistics. Descriptive statistics have used to present the features and

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characteristic of the studied subjects (staff nurses) while inferential statistics have used to draw the valid inferences regarding knowledge of care of patient undergoing dialysis among staff nurses working in dialysis unit of the selected hospital of Indore.”

OBJECTIVE OF THE STUDY:

- (1) To assess the pre test knowledge of staff nurses regarding care of patient undergoing dialysis among staff nurses working in dialysis unit of the selected hospital.
- (2) To evaluate the effectiveness of self instructional module on knowledge regarding care of patient undergoing dialysis.
- (3) To find out the association between pretest knowledge, score and the selected demographic variables.

ORGANIZATION AND ANALYSIS OF FINDINGS

For statistical findings, the responses of frequencies on the basis of collected data were calculated and analyzed by using various statistical tools. The descriptive statistics like mean and standard deviation of knowledge and practice scores were identified. Prevalence of an outcome variable along with 95% confidence interval was calculated. 't-test', the parametric test was used to compare the mean values of pre and post test scores obtained for knowledge on care of patient undergoing dialysis among staff nurses working in dialysis unit of the selected hospital.

The Chi-Square test had developed by Pearson was used to observe the association of knowledge scores regarding care of patient undergoing dialysis among staff nurses working in dialysis unit of the selected hospital with various selected demographic variables. Both pre and post test scores were used to identify the associations for knowledge scores with various selected demographic variables. The probability value $p < 0.05$ and $p < 0.02$ was considered as significant; $p < 0.001$ and $p < 0.004$ were considered as highly significant. The present chapter concerned with tabulated and statistically analyzed data.

The statistics analysis of data is organized and presented under the following headings

Section – I : Frequency and percentage of socio-demographic variables

Section – II : To evaluate the effectiveness of self instructional module in terms of gain in knowledge scores of staff nurses regarding care of patient undergoing dialysis among staff nurses working in dialysis unit of the selected hospital.

Section – III : To find out the association between pre test knowledge scores and the selected demographic variables

SECTION I: FREQUENCY AND PERCENTAGE OF SOCIO -DEMOGRAPHIC VARIABLES

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The present section-I comprises of selected demographic variables with their tabular and graphic presentation involves the interpretation of data in terms of frequency and percentage distribution. The present section-I also concerned with the data pertaining to the baseline information such as age, sex, professional qualification, clinical experience in dialysis unit, sources of knowledge of care of patient undergoing dialysis among the staff nurses working in dialysis unit of selected hospitals of Indore.

Table 4.1.1: Frequency and percentage distribution of studied subjects according to age

Sr. No.	Particular Age	Frequency (No.)	Frequency (Percentage)
1.	20-25 years	21	35
2.	26-30 years	20	33.33
3.	31-35 years	13	21.67
4.	36 years and above	6	10

The information regarding age distribution of studied subject’s (staff nurses) is identified in the present table 4.1.1. It is obtained that the 6 nurses (10%) were from 36 years and above age group, while 13 nurses (21.67%) from 31 – 35 years of age group. It is observed that the 20 nurses (33.33%) were from 26-35 years of age group. And it is also observed that 21 nurses (35%) were belongs the 20 – 25 years age group. Number of patient in age group 26-30 is highest as compare to other age group numbers.

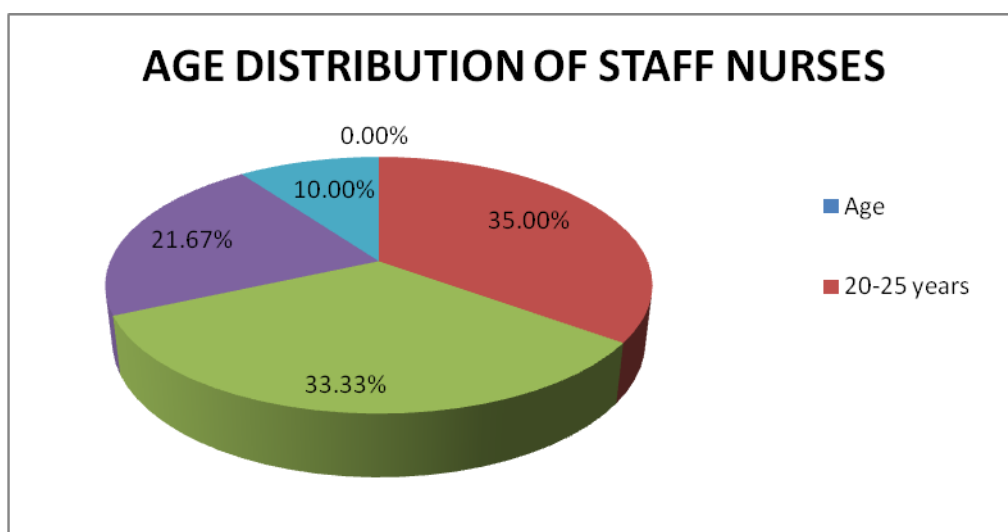


Figure 4.1.1: Pie diagram depicting age distribution of studied sample

Table 4.1.2: Frequency and percentage distribution of gender of staff nurses

Sr. No.	Particular Gender	Frequency (No.)	Frequency (Percentage)
1.	Male	24	40.0
2.	Female	36	60.0

The information regarding gender distribution of studied subject's (staff nurses) is identified in the present table 4.1.2. It is observed that the 24 nurses (40%) were male while 36 nurses (60%) were female.

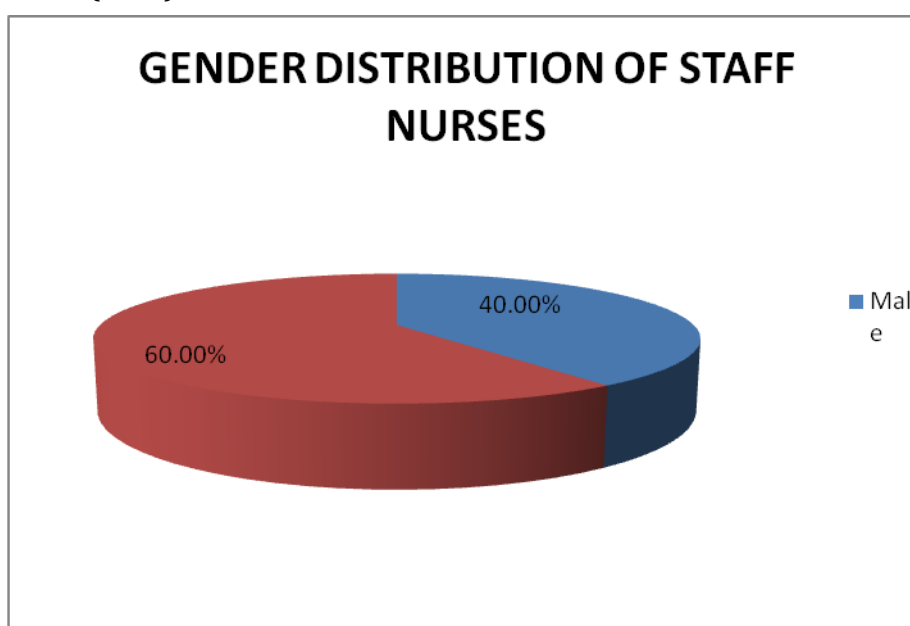


Figure 4.1.2: Doughnut diagram depicting frequency and percentage distribution of gender of staff nurses

Table 4.1.3: Distribution of professional qualification of selected samples in terms of frequency and percentage

Sr. No.	Particular Educational Status	(Frequency) No.	(Frequency) Percentage
1	GNM	35	58.33
2	P.B. B.Sc.	10	16.67
3	B.Sc.	13	21.67

4	M.Sc.	2	3.33
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Professional qualification acquired by the staff nurses is shown by table 4.1.3. It is observed that 35 nurses (58.33%) had acquired General Nursing Midwifery (GNM) course while one-sixth 10 staff nurses (16.67%) had completed Post Basic B. Sc. Nursing. It is also reported that 13 staff nurses (21.67%) who had completed their B. Sc. (Nursing). And only 2 staff nurses (3.33%) was found who completed M. Sc. (Nursing), is considered competent sample for the present study. The education status analysis seems that GNM has highest frequency with almost 58%. All other together contribute only 42%.

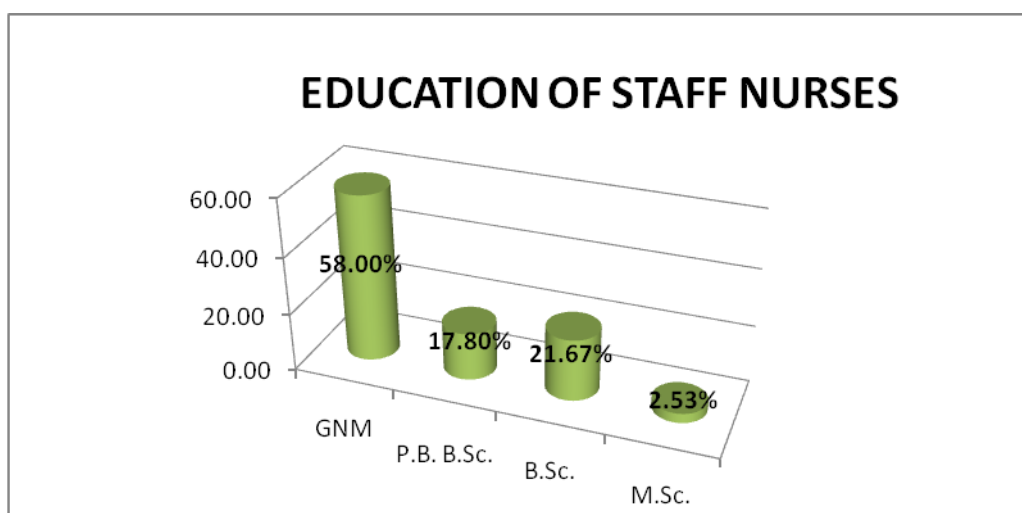


Figure 4.1.3 Bar diagram depicting distribution of professional qualification

Table 4.1.4: Frequency and percentage distribution of staff nurses according to clinical experience in dialysis unit

Sr. No.	Particular EXPERIENCE	Frequency (No.)	Frequency (Percentage)
1	0-3 years	37	61.67
2	4-6 years	11	18.33
3	7-9 years	8	13.33
4	10-12 years	4	6.67

The table 4.1.4 deals with the clinical experience in dialysis unit which is in years of studied subject's. It is revealed from the study that most of the nurses (37, 61.67%) had 0-3 years of experience, 11 nurses has the 4 - 6 years of clinical experience in dialysis

unit, 8 staff nurses 13.33% nurses had 7 – 9 years of clinical experience. It was also highlighted from the table that 4 staff nurse (6.67%) had a clinical experience of 10 – 12 years in dialysis unit. Level 0-3 Years of experience covers 2/3 rd or 62% of total number of patients. It is far ahead of other groups. The frequency is reducing with years of experience.

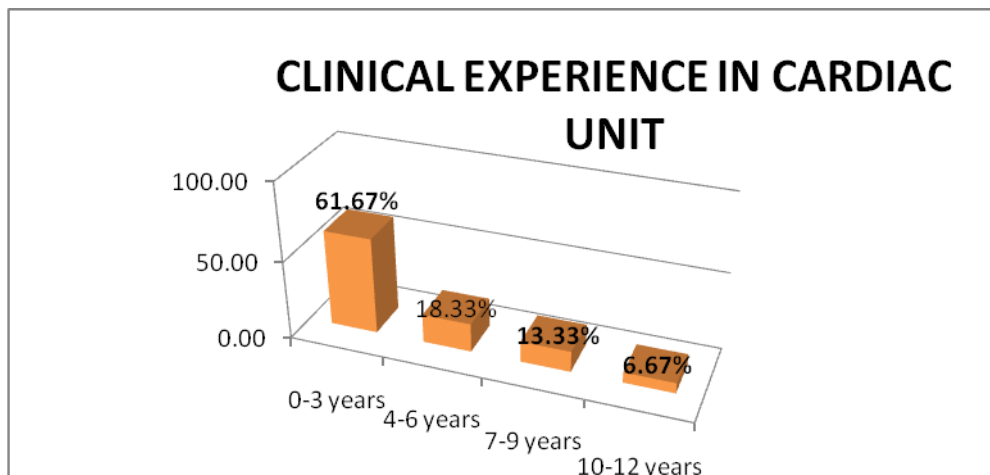


Figure 4.1.4: Column diagram depicting distribution of clinical experience of staff nurses in dialysis unit

Moreover, the major achievement of maximum gain in their respective knowledge of staff nurses regarding renal care is only due to self instructional module (SIM) of care of patient undergoing dialysis. The post knowledge of staff nurses regarding care of patient undergoing is adequate as responses were considered. It is reported that their knowledge related to renal care, kidney failure, and the dialysis process is at more than satisfactory level and which is also correctly responded by approximately ninety percent (90.0%) of the population.

All such subjects needed careful attention towards the knowledge of care of patient undergoing dialysis.

Furthermore, it is observed that after administration of self instructional module (SIM) on care of patient undergoing dialysis, major part of selected population was benefited as their respective levels of knowledge related to care of patient is considered which clearly influenced the effectiveness of self instructional module (SIM) in terms of significant gain in knowledge.

Furthermore, it is confirmed that gain in knowledge in staff nurses due to self instructional module (SIM) of renal care. The above statement and interpretation from all the tables of section-II confirm the second objective of the present study.

SECTION II: THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE IN TERMS OF GAIN IN KNOWLEDGE SCORES OF STAFF NURSES REGARDING CARE OF PATIENT UNDERGOING DIALYSIS

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The section-III deals with Statistical analysis and interpretation of data in order to evaluate the effectiveness of self instructional module (SIM) in term of gain in knowledge of studied subject's i. e. staff nurses.

The comparison between mean score of pre and post-test of knowledge and regarding care of patient undergoing dialysis among staff nurses working in dialysis unit is also summarized in the present section-III.

Table: 4.2.1 Frequency and Percentage distribution of pre-test knowledge score

S. No.	Pretest knowledge score (N=60)	Frequency	Percentage
1	Poor (0-09)	49	81.67
2	Average (10-14)	10	16.67
3	Good (15-20)	1	1.67

The information on the existing knowledge of care of patient undergoing dialysis among staff nurses working in dialysis unit of selected hospital of Indore are reported as the marks/category scored in pre-test by staff nurses is observed in table 4. 3.1 For determination of category, every correct answer carries one mark while every wrong answer carries zero mark. The distribution of marks such as 0-09 weighted for poor knowledge, 10-14 for average knowledge, and 15-20 for good knowledge has been assign to allocate a category.

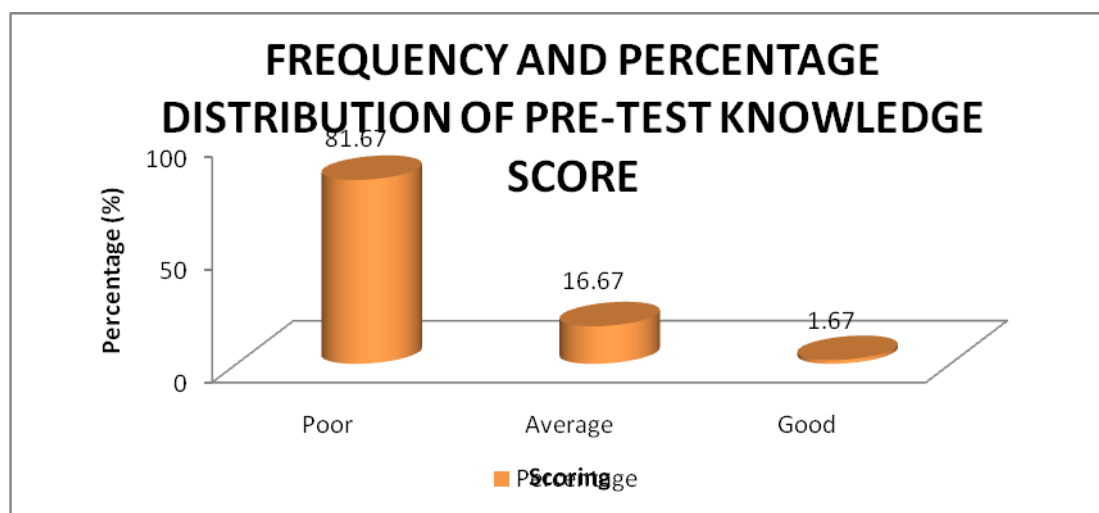


Figure: 4. 2.1. Bar diagram showing frequency and percentage distribution of pre-test knowledge score

The existing pre knowledge regarding renal care is identified by pre-test score and it is reflected that small proportion of staff nurses (i.e.1.67%) were in **Good** (15-20) category which are aware about kidney while a large proportion of staff nurse (81.67%)

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were in **Poor** (0-09) category and not aware about plotting of the care of patient undergoing dialysis which is needed careful attention towards the present problem. 10 staff nurse (16.67%) were observed in **Average** (10-15) category.

THE COMPARISON BETWEEN MEAN SCORE OF PRE AND POST-TEST OF KNOWLEDGE

Table 4.2.2 - Mean (\bar{X}) and Standard Deviation (s) of Knowledge Scores

Variable	Test	Mean (\bar{X})	S D (s)
Knowledge	Pre	7.34	2.14
	Post	22.78	3.08

Table 4.4.3 dealt with the mean and the standard deviation of knowledge scores regarding care of patient undergoing dialysis among staff nurses working in dialysis unit of selected hospital of Indore. Knowledge in mean pre-test score was 7.34 ± 2.14 while gain in knowledge regarding care of patient undergoing dialysis among staff nurses had observed in post-test mean score and it was rose to 22.78 ± 3.08 .

The above mean difference of knowledge scores related to care of patient undergoing dialysis is reflected that staff nurses gained knowledge due to SIM.

Furthermore, it is reflected from the tables of section-III that there is a significant difference in means of knowledge of pre and post test which partially fulfil the objective of present study.

Table 4.2.3 Comparison of knowledge scores between pre and post-test (Mean Score, Standard Error of Mean and Paired 't' Test)

Knowledge Score	Mean	Standard Error of Mean	Degree of Freedom	't' value	Level of Significance
Pre-test	7.34 ± 2.14	0.608	112	20.133	< 0.0001*
Post-test	22.78 ± 3.08				

* Highly significant

The mean value of Post test is highly significantly more than Pre-test values. $P < 0.0001$, the knowledge score has improved significantly.

The table 4.3.4 is revealing the comparison between pre-test and post-test knowledge scores. As knowledge of staff nurses is considered it is obtained by the table that observed probability value of student's t-test is 20.133 for 112 degrees of freedom. The obtained probability value showed a very highly significant value ($p < 0.0001$) which

clearly influenced that there is no doubt in confirmation that there is a high significant difference between pre and post-test knowledge scores.

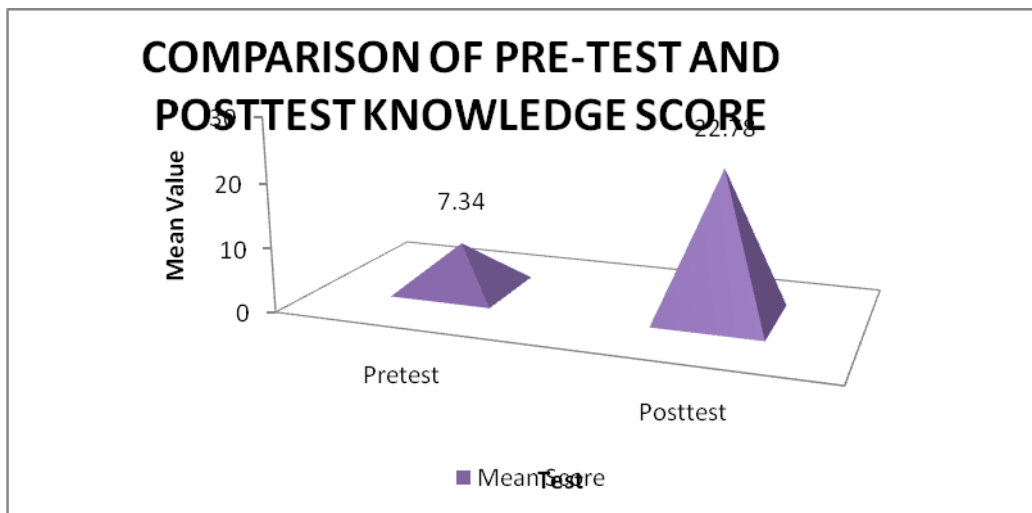


Figure: 4.2.2 Comparison of knowledge scores between pre and post-test

Moreover, the very high significant difference in pre and post knowledge test scores reported the remarkable gain which is due to self instructional module (SIM) of care of patient on knowledge among staff nurses working in dialysis unit of selected hospital of Indore.

SECTION III: ASSOCIATION BETWEEN KNOWLEDGE MEASURED IN PRE-TEST SCORES AND SELECTED DEMOGRAPHIC VARIABLES

The present section-III deals with the association of selected demographic variables such as age, gender, professional qualification, and clinical experience of staff nurses working in dialysis unit of selected hospital of Indore.

The categorical assessment of the responses of pre and post test scores from selected staff nurses for the levels of knowledge regarding care of patient undergoing dialysis is also summarized in the present section-III.

ASSOCIATION BETWEEN KNOWLEDGE PRE TEST SCORE WITH SELECTED DEMOGRAPHIC VARIABLES

Table 4.3.1: Association of age with levels of knowledge identified in pre test scores

Sr. No.	Particular AGE	Knowledge Score			Total	Degree of Freedom
		Poor	Avg.	Good		

Sr. No.	Particular AGE	Knowledge Score			Total	Degree of Freedom
		Poor	Avg.	Good		
1	20-25 years	18	3	0	21	6
2	26-30 years	20	0	0	20	
3	31-35 years	7	5	1	13	
4	36 years and above	4	2	0	6	
χ² value		χ ² =20.22, P<0.001 Highly significant				

The present table 4.3.1 is showing association of age with levels of knowledge reflected in pre test scores regarding care of patient undergoing dialysis among staff nurses working in dialysis unit of selected hospitals. The observed p-value of Chi-Square test is 20.22 for 6 degrees of freedom which showed a significant value (p<0.001). Hence, it is obtained that there is a significant association between age and levels of knowledge in pre test scores regarding care of patient undergoing dialysis.

Moreover, it is reflected that age is a factor which is partially influenced with knowledge shown in pre test scores regarding care of patient undergoing dialysis among staff nurses working in dialysis unit of selected hospital of Indore.

Table 4.3.2: Association of professional education with levels of knowledge identified in pre test scores

Sr. No.	Particular EDUCATIONAL STATUS	Knowledge Score			Total	Degree of Freedom
		Poor	Avg.	Good		
1	GNM	31	3	1	35	6
2	P.B. B.Sc.	8	2	0	10	
3	B.Sc.	10	3	0	13	
4	M.Sc.	0	2	0	2	
χ² value		χ ² = 8.84, P>.05 Non significant				

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The information on the association of professional education with knowledge identified in pre test scores about care of patient undergoing dialysis of studied subject reveals by table 4.3.2 and it is obtained that the probability value of Chi-Square test is 8.84 for 6 degrees of freedom which showed a significant value ($P>0.05$). Therefore, it is concluded that there no significant association between professional education of the studied subject and pre-test scores.

Moreover, it is reflected that professional education acquired by the studied subject is the factor which is partially influenced the existing knowledge regarding the present problem of care of patient undergoing dialysis among staff nurses working in dialysis unit.

Table 4.3.3: Association of clinical experience in dialysis unit with levels of knowledge identified in pre test scores

Sr. No.	Particular Experience	Knowledge Score			Total	Degree of Freedom
		Poor	Avg.	Good		
1	0-3 years	34	2	1	37	6
2	4-6 years	7	4	0	11	
3	7-9 years	6	2	0	8	
4	10-12 years	2	2	0	4	
χ^2 value		$\chi^2= 10.54, P>.05$ Non significant				

The information on association of clinical experience in dialysis unit (in years) with pre-test scores related to knowledge of care of patient undergoing dialysis is depicting in table 4.3.3. The probability value of Chi-Square test is 10.54 for 6 degrees of freedom which showed a non-significant value ($P>0.05$). Therefore, it is reported that there is no significant association between clinical experience in dialysis unit and pre-test scores related to knowledge of care of patient undergoing dialysis.

Moreover, it is observed that the clinical experience in dialysis unit is a factor which does not influence the knowledge of care of patient undergoing dialysis among staff nurses working in dialysis unit.

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The information on association of gender in dialysis unit with pre-test scores related to knowledge of care of patient undergoing dialysis is presented in table 4.3.3. The probability value of Chi-Square test is 2.5 for 2 degrees of freedom which showed a non-significant value ($P>0.05$). Therefore, it is reported that there is no significant association between gender of staff nurses in dialysis unit and pre-test scores related to knowledge of care of patient undergoing dialysis.

Table 4.3.4: Association of gender in dialysis unit with levels of knowledge identified in pre test scores

Sr. No	Particular GENDER	Knowledge Score			Total	Degree of freedom
		Poor	Avg.	Good		
1	Male	21	3	0	24	2
2	Female	28	7	1	36	
χ^2 value		$\chi^2=2.5, P>0.05$ Non significant				

Moreover, it is observed that the gender is a factor which does not influence the knowledge of care of patient undergoing dialysis among staff nurses working in dialysis unit.

Furthermore, the analysis and interpretations of collected data indicated rejection of null hypothesis and acceptance of alternative hypothesis i. e. there will be significant difference between the pre-test knowledge score after administration of self instructional module (SIM) in terms of gain in knowledge regarding care of patient undergoing dialysis among staff nurses working in dialysis unit of selected hospital of Indore at 0.5 level.

Moreover, it is highlighted that using of care of patient undergoing dialysis by selected subjects is partially influenced with practices of care of patient undergoing dialysis after administration of self instructional module (SIM) which shown in post test scores among staff nurses working in dialysis unit.

Hence, it is concluded from all the above tables of section-IV and drawn inferences that there is a significant association between pre test scores of knowledge related to care of patient undergoing dialysis with selected demographic variables which confirms the fifth objective of present study.

SUMMARY

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This chapter dealt with the analysis and interpretation of findings of the study. The analysis was organised and presented under various sections. Data was analysed by applying descriptive and inferential statistics.

MAJOR FINDING, DISCUSSION, CONCLUSION, IMPLICATION, LIMITATIONS AND RECOMMENDATIONS

This study enhance the care of patient undergoing dialysis by the efficient use of renal care self instruction module by staff nurses working in dialysis unit. This study aims to assess the effectiveness of self instructional module regarding knowledge on care of patients undergoing dialysis in dialysis unit of selected hospital in Indore.

STATEMENT OF THE PROBLEM:

A pre-experimental study to assess the effectiveness of self instructional module on knowledge regarding care of patients undergoing dialysis among staff nurses working in dialysis unit of selected hospital in Indore. (2013-2014).

OBJECTIVES OF THE STUDY

- To assess the pre test knowledge of staff nurses regarding care of patients undergoing dialysis in dialysis unit of selected hospital in Indore.
- To evaluate the effectiveness of self instructional module on knowledge regarding care of patients undergoing dialysis.
- To find out the association between pretest knowledge, score and the selected demographic variables.

HYPOTHESIS:

- **RH₁**:- There will be significant mean post test scores of the staff nurses regarding care of patients undergoing dialysis, significantly higher than mean pre test knowledge score.
- **RH₂**:-There will be significant association between pre test knowledge score with the selected demographic variable at the level of $P \leq 0.05$.

MAJOR FINDINGS

1. It is observed that 10.00% nurses were from 36 years and above age group, while 21.67% nurses from 31 – 35 years of age group. Number of patient in age group 26-30 is highest as compare to other age group numbers i.e. 35.0%.
2. It was found that the 40% nurses were male while 60% nurses were female.
3. The education status analysis seems that GNM has highest frequency with almost 58% while rest all together contribute only 42%. M. Sc. (Nursing) is considered competent sample for the present study.
4. Level 0-3 Years of experience covers 2/3 rd of total number of patients. The number of staff nurses is reducing with years of experience.

5. The mean post test knowledge score 22.78 was higher than mean pre test knowledge score (7.34). The computed 't' value is 20.113 for knowledge test was more at the level of $P < 0.0001$.

DISCUSSION OF BASELINE DATA OF THE STAFF NURSES:

It is obtained that the 6 nurses (10.0%) were from 36 years and above age group, while 13 nurses (21.67%) from 31 – 35 years of age group. It is observed that the 20 nurses (33.3%) were from 26-35 years of age group. And it is also observed that 21 nurses (35.0%) were belongs the 20 – 25 years age group. Number of patient in age group 20-25 is highest as compare to other age group numbers.

The gender distribution of studied subject's (staff nurses) is identified it is observed that the 24 nurses (40%) were male while 36 nurses (60%) were female. Number of patient in both male and female groups is almost equal and around 50% in both groups. It is observed that 35 nurses (58.33%) had acquired General Nursing Midwifery (GNM) course while 10 staff nurses (16.67%) had completed Post Basic B. Sc. Nursing. It is also reported that 13 staff nurses (21.67%) who had completed their B. Sc. (Nursing). And only 2 staff nurses (3.33%) was found who completed M. Sc. (Nursing), is considered competent sample for the present study. The education status analysis seems that GNM has highest frequency with almost 62%. All other together contribute only 38%.

It is revealed from the study that most of the nurses (37, 61.67%) had 0-3 years of experience, 11 nurses has the 4 - 6 years of clinical experience in dialysis unit, 8 staff nurses 13.33% nurses had 7 – 9 years of clinical experience. It was also highlighted from the table that only 4 staff nurse (6.67%) had a clinical experience of 10 – 12 years in dialysis unit.

Level 0-3 Years of experience covers 2/3 rd of total number of patients. It is far ahead of other groups. The frequency is reducing with years of experience.

Discussion about the pre-test knowledge

The information on the existing knowledge of care of patient undergoing dialysis in dialysis unit among staff nurses working in dialysis unit of selected hospital of Indore are reported as the marks/category scored in pre-test by staff nurses. For determination of category, every correct answer carries one mark while every wrong answer carries zero mark. The distribution of marks such as 0 - 09 weighted for poor knowledge, 10 - 14 for average knowledge, and 15-20 for good knowledge has been assign to allocate a category.

The existing pre knowledge regarding care of patient undergoing dialysis is identified by pre-test score and it is reflected that small proportion of staff nurses (i.e.1.67%) were in **Good** (15-20) category which are aware about kidney while a large proportion of staff nurse (81.67%) were in **Poor** (0-09) category and not aware about plotting of the care of patients undergoing dialysis which is needed careful attention towards the present problem. 10 staff nurse (16.67%) were observed in **Average** (10-14) category.

Discussion of effectiveness of self instructional module:

This study shows that there is a significant increase in knowledge of staff nurses after giving the self instructional module. The t-value is 20.133 for knowledge test ($P < 0.0001$).

In this study hypothesis **RH₁** made by the investigator is accepted that there is a significant increase in level of knowledge after implementation of self instructional module regarding the care of patients undergoing dialysis among the staff nurses working in dialysis unit who participated in study.

Discussion of association between pre tests score and selected demographic variable.

The study shows that there is either has or has no significant association between age of staff nurses, professional education, clinical experience in dialysis unit, gender of staff nurses working in dialysis unit.

There was a significant $\chi^2_6 = 20.52$ ($P < 0.001$) association between age of staff nurses and their knowledge on care of patients undergoing dialysis.

There was very less significant $\chi^2_4 = 9.19$ ($P > 0.05$) association of professional education with levels of knowledge identified in pre test scores.

There is also very less significant $\chi^2_6 = 11.27$ ($P > 0.05$) association of clinical experience in dialysis unit with levels of knowledge identified in pre test scores.

There was a very less significant $\chi^2_2 = 2.5$ ($P > 0.05$) association between using care of patients undergoing dialysis and levels of knowledge in pre test scores regarding care of patients undergoing dialysis.

CONCLUSION

After the detailed analysis, this study leads to the following conclusion: The existing pre-test knowledge regarding care of patients undergoing dialysis is identified by pre-test score and it is reflected that the small proportion of staff nurses (i.e.1.67%) were in **Good** (15-20) category which are aware about kidney while a large proportion of staff nurse (81.67%) were in **Poor** (0-09) category and not aware about plotting of the care of patients undergoing dialysis which is needed careful attention towards the present problem. 10 staff nurse (16.67%) were observed in **Average** (10-14) category.

The observations reflect the need of awareness about care of patients undergoing dialysis.

This study shows that there is a significant increase in knowledge of staff nurses after giving the self instructional module. The t-value is 20.133 for knowledge ($p < 0.0001$). There was significant association between knowledge on care of patients undergoing

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dialysis and age, professional education, clinical experience in dialysis unit, and the gender of staff nurses on care of patients undergoing dialysis working in dialysis unit.

IMPLICATIONS

The findings of the present study have implications in the field of nursing practice, nursing education, nursing research and nursing administration.

Nursing practice

The nurses working in hospital setting both in inpatient and outpatient services play an important role in educating the staff nurses of dialysis unit about the care of patients undergoing dialysis. The nursing education group has the responsibility to provide necessary information and current practices regarding care of patients undergoing dialysis. Further in-service education programs can help the nursing staffs of care of patients undergoing dialysis to take the standard precautions in health care settings to enhance the renal care. Copies can be kept in the dialysis unit to enlighten the nurses and it can also be given to them for learning, as it is an economical way of teaching in terms of time and resource the nurses can participate in various workshop and conferences.

Nurses need to be equipped with advanced knowledge to become involved in providing the necessary services to the patients in dialysis unit. In order to motivate and encourage the Staff nurses of wards the nursing educator and hospital director to appraise the staffs for their efficiency and devotion for patients. Nurses through their own training acquire a positive attitude and should equip themselves with a sound based of knowledge, which they can use in clinical practice.

Nursing education

With changing health care trends nursing education must emphasize on prevention and then cure and thus, empowering the prospective nurses to be well prepared to assist client for soon recovery.

The basic training of nurses in India includes Care of patients undergoing dialysis should update as part of the course, in dialysis nursing. Theoretically the focus should be on prevention kidney disorder and enhancing the renal care. However specialty oriented courses are offered at the master level. Training programs for nurses however, need to be improved professional knowledge to provide quality care to the patient.

Nursing administration

In the event of ever changing disease manifestations, knowledge explosion, technological and ever-growing challenges in nursing, the administration has a responsibility to provide nurses with substantial continuing education opportunities. Necessary administrative support should be provided for the development of such educational materials, nursing personnel should be motivated to devote their time for development educational material such as posters pamphlets, planned teaching, and booklets on care of patients undergoing dialysis. There is a

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genuine need for continuing education of nurses, particularly for those who are working in hospital departments dealing with the mothers in dialysis unit. In India at present, short-term education courses are conducted at times for practicing nurses.

Nursing research

Though nursing research in medical surgical nursing field is still at the growing stage in India, an increased number of studies related to care of patients undergoing dialysis are being taken up by the nurses at master's and post master's level in various Indian settings.

There is a need for extensive research in this area so that strategies can be developed for educating the staff nurses those who are working in dialysis unit about renal care. The nurse researcher should be able to conduct the research at various aspects of awareness and prevention of infection so as to generate more scientific data. Findings of this study will provide the baseline data about care of patients undergoing dialysis and nursing care strategies adopted to educate the staff nurses of dialysis unit about the care of patients undergoing dialysis and it can be used for further the research.

5.5 LIMITATIONS

1. The present study is limited to only one pre-test post test group; no control group is adopted for the study.
2. The study is also limited to a small sample in a different hospitals hence the findings of the study cannot be generalized.
3. The structured knowledge questionnaire was developed as no standardized tool was available.
4. The study is limited to staff nurses.
5. Limited time available for data collection

RECOMMENDATIONS

On the basis of the findings of the study, it is recommended that:

1. Studies may be conducted to evaluate the effectiveness of the information booklet regarding care of patients undergoing dialysis.
2. A similar study may be repeated on a larger sample covering all staff nurses in hospital.
3. An evaluator study to assess the knowledge of staff nurses on care of patients undergoing dialysis.
4. A study may be undertaken on staff nurses of different state to evaluate the effectiveness of protocol on care of patients undergoing dialysis.

SUMMARY

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This chapter dealt with the nursing implications, limitations, suggestions and recommendations drawn from the result of the study.

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